

Electrical Installations



What you should know before doing electrical work



Property owners:

Before you do electrical work or hire a contractor, please consider this:

- ▶ Protect your investment by making sure you have all electrical permits, inspections and approvals as required by law. According to the National Fire Protection Association, about 38,000 home fires resulting from electrical problems are reported each year, causing about 1,200 injuries and \$668 million in direct property damage.
- ▶ An electrical permit must be purchased by the person, company or organization doing the work. Only property owners or electrical contractors can purchase an electrical permit.
- ▶ The lack of a permit, inspection and approval could affect the safety of your home or business, ability to obtain financing or sell your property, obtain insurance or collect on insurance claims.
- ▶ A permit, inspection and approval will ensure that the work done on your property conforms to current safety codes.

Electrical contractors and property owners:

An electrical permit is required for most new, remodel and maintenance electrical work

- ▶ Your best protection is purchase of electrical permits and having your electrical work inspected, as required by law.
- ▶ You could be subject to civil penalties if you do not obtain the required permits.
- ▶ You could face a fine of up to \$2,000 for failing to obtain a permit before beginning electrical work. Each day and each location on which a violation occurs constitutes a separate violation.
- ▶ Additional penalties can be levied for failure to correct any violations noted during an electrical inspection.



Projects that do not require a permit:

- ▶ Travel trailers, plug-in appliances, like-in-kind replacement of circuit breakers, fuses, lamps, snap switches, receptacle outlets, household appliances, heating elements, light fixture ballasts, contactors, relays, timers, motor starters, similar control components and small motors.

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Examples of electrical work that either require or do not require a permit and inspection

| WAC 296-46B | |
|---|---|
| Type of Work | Electrical Permit and Inspection Required. |
| Circuit wiring | |
| New | Yes |
| Alterations/repair | Yes |
| Like-in-kind replacement of: | |
| Circuit breaker | No |
| Snap switch | No |
| Receptacle outlet | No |
| Fuse | No |
| Lamp | No |
| Heating element | No |
| Lighting fixture ballast | No |
| Electrical contactor or motor starter | No |
| Timer | No |
| Household appliance (in same location) | No |
| Control component (relays, floats, pressure switches, limit switches, etc.) | No |
| Circuit board | No |
| <= 10 Horse power motor | No |
| Wiring | Yes |
| Panelboards | |
| Electrical service (temporary, new, altered, repaired) | Yes |
| Sub-panels (new, altered, repaired) | Yes |
| Mobile home | Yes |
| RV site | Yes |
| Miscellaneous | |
| Meter or Service mast repair | Yes |
| Outbuildings | Yes |
| Swimming pools, spas, hot tubs | Yes |
| Septic pumping systems | Yes |
| New | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Irrigation machines | Yes |
| Thermostat | |
| New | Yes |
| Repair/Replace | No |

| | |
|---|-------|
| Signs (i.e. new, repair, replace) | Yes |
| Marina berth (i.e. new, repair, replace) | Yes |
| New, Replace | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Generator | |
| New, Replace | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Fire, burglar alarm, intercom, home stereo | |
| New, Replace | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Energy management system | |
| New, Replace | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Telecommunications system | |
| Residential | No |
| Commercial | |
| New - >10 outlets | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| HVAC Equipment | |
| New, Replace | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Appliances - plug and cord | No |
| Utilization Equipment (other than appliances) | |
| New, Replace, Relocate | Yes |
| Repair (see Like-in-kind replacement) | Maybe |
| Anything Else | Ask |
| An Electrical Permit is not required for: Travel trailers; plug-in appliances; like-in-kind replacement of circuit breakers, fuses, lamps, snap switches, receptacle outlets, household appliances, heating elements, light fixture ballasts, contactors, relays, timers, motor starters, similar control components, and small motors. | |

How to protect yourself and your home from fire danger

- ▶ Only do electrical work if you are qualified. If you are not qualified, hire a licensed electrical contractor.
- ▶ Never overload outlets, extension cords or electrical circuits. If your circuit breaker trips, your circuit breaker is overloaded or your circuit has malfunctioned and should be inspected by a qualified person.
- ▶ Obtain the required permits, inspections and approvals.



How to protect your property investment (the ability to refinance, sell, get insurance, etc.)

- ▶ Get the required electrical permits if you are doing the electrical work or be sure the electrical contractor you hire gets one.
- ▶ Locate electrical work you or an electrical contractor did in the past and determine if you have corresponding permits. If not, contact the Department of Labor and Industries (L&I) for an electrical safety inspection.
- ▶ If you are unsure whether existing electrical work was inspected, obtain a permit to “inspect existing electrical work” from your local L&I office. We will inspect your property for electrical safety.
- ▶ Safeguard your permits and approvals. Lack of proper documentation for electrical modifications may cause you problems when trying to sell your property.
- ▶ If you hire an electrical contractor be sure they are properly licensed.

Principles that guide state electrical inspections

- ▶ Public safety: To protect the public from unsafe living and working conditions.
- ▶ Fire safety: Improperly installed components, including electrical, are a leading cause of fires in the state.
- ▶ Consumer protection: Improperly installed electrical work can be costly to a property owner.

State authority regarding electrical inspection

- ▶ L&I's Electrical Program has statewide responsibility for inspecting both new and altered electrical systems in all types of installations ([RCW 19.28](#)). With this responsibility, L&I's goal is to provide consistency and uniformity in application of laws and rules concerning electrical installations.
- ▶ Some cities also do electrical inspections. Their standards of inspection must meet or exceed those required by L&I.

For more information

- Play it safe and contact L&I before you do electrical work. For the L&I offices nearest you, go to www.Offices.LNI.wa.gov or call 1-800-547-8367. You can also find your local L&I office in the state section of the telephone book, listed as “Labor and Industries, Department of.”
- Visit L&I's web site at www.LNI.wa.gov/tradeslicensing/electrical.

Electrical permitting and inspection

Filling out the permit:

- Check a box at the top of the electrical permit form to indicate the type of permit.
- Do not check the "Request Inspection" box at the top of the permit unless the job is ready to be inspected.

If the job is not ready and you request an inspection, you will be charged an additional trip fee of \$36.40.

Installer information:

- Electrical contractors must completely fill out all information.
- Owners must completely fill out all information except the single line for electrical contractor and license number. Do not forget your signature assuming responsibility for installation.

Installation description:

- Include a complete description of all the work that is being performed under the permit.
- For new residential dwelling construction or residential dwelling remodels/additions of more than 500 square feet, enter the square footage of the project.
- All residential septic/sewage pump systems, outbuildings (including pump houses), hot tubs, thermostats, security systems and other such items, must be listed in the description.

Map or driving directions:

- To ensure a prompt inspection and to avoid additional trip fees, you must provide a good map and/or driving directions indicating the nearest major intersection.
- If you believe the inspector may have difficulty locating your work site, you should provide a contact name and telephone number at the bottom of the map area.

Electrical permit fees:

- The initial inspection fee will be based on your installation description.
- The electrical inspector will adjust the fee if the information you provide is incomplete or inaccurate.

Making your inspection request:

- To request an electrical inspection by telephone, call the electrical inspection request line for the local L&I office serving your area. You can phone in your request at any time, 24 hours a day. Requests made after 4:00 PM will be processed the following business day. Requests made on any other telephone line will not be processed for inspection.
- Because of varying workloads, the response time for an inspection may vary. Most inspections are performed within two work days of receiving your request.
- If any special arrangements are needed, you must contact your inspector between 8:00 and 8:30 a.m. before the inspection. Special arrangements could include access to the site when no one is present, request for specific inspection days or times, or other needed arrangements.
- Inspectors will not enter any work site where minors are present, unless the owner or the owner's adult representative is present.

Canceling an inspection: Contact your inspector before 8:30 a.m. the day of the inspection to cancel an inspection request. Cancellations made after 8:30 a.m. may not reach the inspector and may result in additional fees.

Your responsibilities:

- You must **restrain all domestic and farm animals** to provide clear and safe access to the inspection site or the inspection will not be made. If necessary, you must provide safe access by way of steps, stairs or ladder into the inspection site.
- The **site must be free from any hazards** to the electrical inspector. Inspectors will not enter an unsafe work site.
- **Manufactured home inspections:** Display city or county manufactured home placement permit in a conspicuous place at work site.
- **Covering electrical work:** No electrical work may be covered prior to inspection approval.

Note: Additional fees may be charged for additional trips.